Forest Service
Northeastern Area State and Private Forestry
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Subject: Trip report

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On October 19, 2021, personnel from USDA Forest Service, Eastern Region, State and Private Forestry, Forest Health Protection, Morgantown, WV visited Grey Towers National Historic Site in Milford, PA to conduct a *Lymantria dispar dispar* (LDD) egg mass survey, and to determine population levels and the need for treatment in FY2022. While there I also looked at the current hemlock woolly adelgid (HWA) and elongate hemlock scale (EHS) status, and also for the presence of tree of heaven (TOH) and spotted lanternfly (SLF).

For determining the LDD population, a 1/40th acre fixed radius plot was established and a tally of all new egg masses observed on overstory trees, understory vegetation, ground litter and duff was recorded. Egg mass length (mm) was measured at most of the plots to determine the overall "health" of the existing population and as a measure of egg mass fecundity. A total of 12 plots were established in areas of available host trees (oaks species). Only 4 egg masses were detected on the entire site. Egg mass densities per acre at Grey Towers NHS ranged from 0-40 and averaged less than one egg masses per acre. Overall average egg mass lengths ranged from 20-54 mm and averaged 42 mm. Only one old egg mass was seen during the survey. Current populations are insufficient to cause noticeable defoliation. No treatment is recommended in FY2022. The larger egg mass size indicates the population is building and over the next few years it is suggested to keep an eye out for an increasing population.

While on site, I also checked hemlock foliage of treated and untreated trees for HWA and EHS. Treatment for the most part is working well. As always, there always seem to be that one branch on some individual trees that doesn't seem to get the insecticide. However, it is still the first year and subsequent years the insecticide may make it there. I was also searching for a possible HWA predatory beetle release site, if beetles become available this fall.

While there I also was looking for TOH and SLF. I found a few spots with TOH and no SLF were detected at this time.

I met briefly with Elizabeth Hawke, the horticulturalist for Grey Towers to discuss the LDD population and let her know that at this time there is no need for treatment in FY2022. I worked alone and followed all Covid-19 travel guidelines and USDA Forest Service restrictions to complete this field work in a timely manner.

Map of plot locations is below.

Figure 1. Location of the *Lymantria dispar dispar* egg mass survey plots at Grey Towers NHS, October 19, 2021. Pink equals 1 egg mass per 1/40th acre plot and blue equals zero egg masses per plot.